before taking up much of the theory. Triangles are finished with as little theory as possible, some necessary relations being assumed subject to later proof, and the more abstract theoretical work all follows the part on triangles. There are numerous interesting features, including some excellent applications of trigonometry to geometry, and some rather uncommon proofs. The formulas to be memorized are emphasized by black type, but there is no distinction between those really important and some that could as well be omitted. The tables are conveniently arranged five place tables in type that, although rather small, is still easy to read.

A Review of High-School Mathematics. By WILLIAM D. REEVE and RALEIGH SCHORLING. Chicago: The University of Chicago Press. Pp. x + 70. 40 cents net.

This book contains the material used for review at the University High School of the University of Chicago. It covers algebra, geometry, and some of the elements of trigonometry. There is an abundance of good material which is sometimes arranged so that it serves to group the ideas in preparation for future use, but at other times seems too much influenced by the teaching order used in first going over the subjects. In all probability this results from the fact that the book is planned to serve the double purpose of a review book for each year, and a final fourth year review of all college entrance mathematics. At the end of the book the authors give their idea of a minimum course in mathematics for the first year and a half.

Education Through Concrete Experience. Volume IV of the Francis W. Parker School Year Book. Chicago: Press of The Francis W. Parker School. Pp. 186. 35 cents.

This book has been written by the faculty of the school to illustrate their use of the concrete in the various departments. It contains such articles as "Mental Imagery in Geography," "The School Museum," "School Heating and Ventilation—A Study in Applied Physics," and "A History Newspaper." Of special interest to teachers of mathematics are "The Pupil's Experience as the Source of his Problems in Arithmetic" and "Experience Building in the Teaching of Geometry." The book is full of suggestion to both executive and teacher, and it merits a wide circulation.

Elementary Algebra. By H. E. SLAUGHT and N. J. LENNES. Boston: Allyn and Bacon. Pp. x + 357.

This book is planned to cover the first year in the subject. It gives a long course for this time, for it includes all the required topics for Elementary and Intermediate Algebra except the Progressions. Like previous books by these authors there is great emphasis on simple presentation and easy gradation in each topic, and on the side of concrete

applications. There is an abundance of exercises and problems through the text, and the last thirty-five pages is given up to review exercises on the various chapters. While it is true that the large part of the problems are concerned with concrete things, rather than having a practical application in themselves, there are many interesting ones, some of which correlate this subject with other school subjects to good purpose. The historical notes are well chosen and are attractively arranged. The table of contents and the index are particularly usable, and the book is attractive in its general makeup.

Thoughts on Ultimate Problems. By F. W. FRANKLIN. London: David Nutt. Pp. 150. 1/6.

The following topics from the table of contents gives an idea of the field covered: A synoptic statement of two Theodocies; Notes on a new theory of time; Altruism and happiness; Theory of discrete manifolds; Historical data concerning the birth of Christ; The Johannine problem; etc.

The author is a profound thinker and gives here a condensed statement of his conclusions in rather technical language.

Analytic Mechanics. By JOHN ANTHONY MILLER and SCOTT BARRETT LILLY. Boston: D. C. Heath & Co. Pp. 297.

This book treats of those fundamental principles of mechanics which they believe to be essential to the progress of a student pursuing physics, engineering or celestial mechanics.

One purpose of the work is to develop facility in the application of mathematical principles to physical phenomena and to this end there are a large number of problems throughout the book. For the most part the illustrative problems are drawn from real structures or real machines.

A Text-Book on Practical Mathematics for Advanced Technical Students. By H. LESSLIE MANN. London and New York: Longmans, Green & Co. Pp. 487. $2.10 net.

This book is intended to cover a two- or three-years' course and comprises algebra, trigonometry, calculus, and the application of these to concrete examples. By treating the different subjects in one book in this way the author can emphasize those topics most used in the work of the calculus and its applications. The problems are well chosen and a student who completes the book should have a good knowledge of the subjects treated.

Ten Years at Yale. A Series of Papers on Certain Defects in the University World of To-day. By GEORGE FREDERICK GUNDELFINGER. New York: The Shakespeare Press. Pp. 216. $1.00 net.

"This is a series of papers constructed from thoughts, remarks and observations, jotted down by the author from time to time during his